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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,333	06/02/2005	Hiromu Ohnogi	1422-0677PUS1	3239

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EXAMINER

MERCIER, MELISSA S

ART UNIT PAPER NUMBER

1615

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,333	<b>Applicant(s)</b> OHNOGI ET AL.	
	<b>Examiner</b> Melissa S. Mercier	<b>Art Unit</b> 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-2-05, 9-13-05, 11-6-06</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Priority***

Applicants claim of priority to PCT/JP03/15576 filed on December 5, 2003 is acknowledged.

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statements filed on June 2, 2005, September 13, 2005, and November 6, 2006 is acknowledged.

### ***Drawings***

The drawings are objected to because the drawings require an appropriate heading. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

Claims 4-9 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 1-3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1, 4, and 7, the metes and bounds are rendered uncertain by the phrase "an oxidation processed product of chlorogenic acid" because it is unclear as to what "an oxidation processed product of chlorogenic acid" is. "An oxidation processed product of chlorogenic acid" could be an extract, a powder, a protein, a bioactive compound, etc. The lack of clarity renders the claims indefinite since the resulting claims do not clearly set forth the metes and bounds of the patent protection desired.

Regarding Claims 2, 5, and 8, it is unclear to the examiner what "degradation products thereof" would encompass. Hydrolysis of a polysaccharide would result in the production of a monosaccharide. These can be construed as degradation products. Also unclear is whether the extract is an aqueous extract or an alcohol extract. After a review of the specification, Applicant has not provided a definition of what "degradation products thereof" would include. Clarification is requested.

Regarding Claims 10-12, it is unclear to the examiner what the metes and bounds of "an extract derived from algae" would encompass. After a review of the specification, the examiner has determined Applicant has not provided a definition as to what "an extract derived from algae" would encompass. The examiner is interpreting algae to encompass any variety of algae including aquatic, eukaryotic, photosynthetic organisms, ranging in size from single-celled forms to the giant kelp.

Furthermore, the examiner is interpreting the claims to read on a compound/composition. The recitation of "a therapeutic agent or a prophylactic agent", "an agent for enhancement of BMP production or an agent for promotion of

osteogenesis", and "a food, beverage, or feed for enhancement of bone morphogenetic protein production or promotion of osteogenesis" is considered to be intended use and does not hold patentable weight.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Laurencin et al. (US Patent 6,077,916).

Laurencin discloses, "examples of hydrophilic non-biodegradable polymers include polysaccharides or carbohydrates such as dextran, heparan sulfate, chondroitin sulfate B, and heparin. Additionally, "dextran" includes dextran and similar derivatives thereof" (column 4, line 64 through column 5, lines 11).

The recitation of intended use is not given any patentable weight in the instant claims, therefore, the teachings of Laurencin read on the instant claims.

Claims 10-12 rejected under 35 U.S.C. 102(b) as being anticipated by Calvin et al. (US Patent 4,162,309).

Calvin discloses "active components can be extracted from the algae by first gathering the fresh algae from its salt water environment and washing it in clean tap or

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distilled water. The water-soluble active components are extracted by mixing the algal powder with water. Preferably the supernatant fluid is then separated from the algal residue. The active ingredients are contained in the supernatant fluid in concentrated form. Alternatively, the algae need not be dried prior to the water extraction step, but is preferably washed free of salt water. After washing, the algae can be comminuted in its freshly washed form or can be frozen and thereafter comminuted by any suitable device, such as by subjecting the algae to sonic vibrations in water" (Column 2, lines 18-44).


The recitation of intended use is not given any patentable weight in the instant claims, therefore, the teachings of Calvin read on the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa S. Mercier whose telephone number is (571) 272-9039. The examiner can normally be reached on 7:30am-4pm Mon through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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